IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1.   (Currently Amended) A method of transporting data through a data network, comprising [[the steps of]]:
     receiving an encoded data;
     mapping said received data to a predetermined data; and
     multiplexing said mapped predetermined data;
     wherein said receiving further includes determining a data rate of said received encoded data.

2.   (Original) The method of claim 1 wherein said encoded data includes 8B/10B encoded data.

3.   (Original) The method of claim 2 wherein said encoded data includes one of a Gigabit Ethernet data and a Fiber Channel data.

4.   (Cancelled)

5.   (Currently Amended) The method of claim [[4]] 1 wherein said [[step of]] receiving further includes [[the step of]] recovering a clock signal from said received encoded data.

6.   (Original) The method of claim 5 wherein said clock signal has a rate one tenth of said data rate.

7-8.   (Cancelled)

9.   (Currently Amended)   The method of claim 1 wherein said multiplexing [[step]] includes [[the step of]] synchronizing said multiplexed predetermined data.

10.   (Original) The method of claim 9 wherein said multiplexed predetermined data is synchronized to a predetermined clock signal.

11.   (Original) The method of claim 10 wherein said predetermined clock signal includes a phase locked loop clock signal.

12.   (Currently Amended) An apparatus for providing data transport through a data network, comprising:
       a clock recovery unit configured to receive an encoded data, wherein said clock recovery unit is further configured to detect a data rate of said received encoded data;
       a data translation unit coupled to said clock recovery unit, configured to translate said received data to a predetermined data; and
       an inverse multiplexer coupled to said data translation unit, configured to inverse multiplex said translated predetermined data.

13.   (Original) The apparatus of claim 12 wherein said encoded data includes 8B/10B encoded data.

14.   (Original) The apparatus of claim 13 wherein said encoded data includes one of a Gigabit Ethernet data and a Fiber Channel data.

15.   (Cancelled)

16.   (Currently Amended) The apparatus of claim [[15]] 12 wherein said clock recovery unit is further configured to recover a clock signal from said received encoded data.

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17. (Original) The apparatus of claim 16 wherein said clock signal has a rate one tenth of said data rate.

18-21 (Cancelled)

22. (Original) The apparatus of claim 12 further including a modem coupled to said inverse multiplexer configured to receive said inverse multiplexed translated predetermined data for transmission.

23. (Original) The apparatus of claim 22 wherein said inverse multiplexed translated predetermined data includes a plurality of STS-3 signals.

24. (Original) The apparatus of claim 23 wherein said plurality of STS-3 signals includes eight STS-3 signals for transmission.

25. (Currently Amended) An apparatus for providing data transport in a network, comprising:

a plurality of FIFOs each configured to frame align a corresponding one of a plurality of STS-3 signals;

a demultiplexer configured to demultiplex received data including said frame aligned STS-3 signals;

a data translation unit coupled to said multiplexer configured to translate said demultiplexed data to a predetermined data; and

a serializer coupled to said data translation unit configured to receive said translated predetermined data and accordingly to generate a corresponding encoded data.

26. (Cancelled)

27. (Currently Amended) The apparatus of claim [[26]] 25 wherein said plurality of STS-3 signals includes eight STS-3 signals.

28-36. (Cancelled)

37.   (Currently Amended) A method for providing data transport in a network, comprising [[the steps of]]:

      frame aligning each of a plurality of STS-3 signals;

      demultiplexing a received data including said frame aligned STS-3 signals;

      translating said demultiplexed data to a predetermined data; and

      generating a corresponding encoded data based on said translated predetermined data.

38.   (Cancelled)

39.   (Original) The method of claim 38 wherein said plurality of STS-3 signals includes eight STS-3 signals.

40-44. (Cancelled)

45.   (Currently Amended) The method of claim 37 further including [[the step of]] synchronizing the translated predetermined data.

46-48. (Cancelled)

49.   (New) A method of transporting data through a data network, comprising:

      receiving an encoded data;

      mapping said received data to a predetermined data, wherein said predetermined data includes a 9-bit data; and

      multiplexing said mapped predetermined data.

50.   (New) The method of claim 49, wherein said 9-bit data includes one of an arbitrary set of 9-bit data.

51.   (New) An apparatus for providing data transport through a data network, comprising:

a clock recovery unit configured to receive an encoded data;

a data translation unit coupled to said clock recovery unit, configured to translate said received data to a predetermined data, wherein said predetermined data includes a 9-bit data; and

an inverse multiplexer coupled to said data translation unit, configured to inverse multiplex said translated predetermined data.

52.   (New) The apparatus of claim 51 wherein said 9-bit data includes one of an arbitrary set of 9-bit data.

53.   (New) An apparatus for providing data transport through a data network, comprising:

a clock recovery unit configured to receive an encoded data;

a data translation unit coupled to said clock recovery unit, configured to translate said received data to a predetermined data; and

an inverse multiplexer coupled to said data translation unit, configured to inverse multiplex said translated predetermined data, wherein said inverse multiplexer is further configured to synchronize said multiplexed predetermined data to a predetermined clock signal, wherein said predetermined clock signal includes a phase locked loop clock signal.

54.   (New) An apparatus for providing data transport through a data network, comprising:

a clock recovery unit configured to receive an encoded data;

a data translation unit coupled to said clock recovery unit, configured to translate said received data to a predetermined data; and

an inverse multiplexer coupled to said data translation unit, configured to inverse multiplex said translated predetermined data;

a modem coupled to said inverse multiplexer configured to receive said inverse multiplexed translated predetermined data for transmission.

55.   (New) The apparatus of claim 54 wherein said inverse multiplexed translated predetermined data includes a plurality of STS-3 signals.

56.   (New) The apparatus of claim 55 wherein said plurality of STS-3 signals includes eight STS-3 signals for transmission.

57.   (New) An apparatus for providing data transport in a network, comprising:
       a demultiplexer configured to demultiplex received data, wherein said demultiplexed data includes a 9-bit data;
       a data translation unit coupled to said multiplexer configured to translate said demultiplexed data to a predetermined data; and
       a serializer coupled to said data translation unit configured to receive said translated predetermined data and accordingly to generate a corresponding encoded data.

58.   (New) The apparatus of claim 57 wherein said 9-bit data has a data rate of 1,125 Mbits/second.

59.   (New) The apparatus of claim 57 wherein said demultiplexer is further configured to perform parity checks on said received data.

60.   (New) An apparatus for providing data transport in a network, comprising:
       a demultiplexer configured to demultiplex received data;
       a data translation unit coupled to said multiplexer configured to translate said demultiplexed data to a predetermined data, wherein said predetermined data includes a 10-bit data; and
       a serializer coupled to said data translation unit configured to receive said translated predetermined data and accordingly to generate a corresponding encoded data.

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61. (New) An apparatus for providing data transport in a network, comprising:

a demultiplexer configured to demultiplex received data;

a data translation unit coupled to said multiplexer configured to translate said demultiplexed data to a predetermined data, wherein said translated predetermined data includes a 10-bit data; and

a serializer coupled to said data translation unit configured to receive said translated predetermined data and accordingly to generate a corresponding encoded data, wherein said serializer is configured to synchronize the translated predetermined data.

62. (New) The apparatus of claim 61 wherein said 10-bit data has a data rate of 1,250 Mbits/second.

63. (New) The apparatus of claim 62 wherein said encoded data includes an 8B/10B encoded data.

64. (New) A method for providing data transport in a network, comprising

demultiplexing a received data, wherein said demultiplexed data includes a 9-bit data;

translating said demultiplexed data to a predetermined data; and

generating a corresponding encoded data based on said translated predetermined data.

65. (New) The method of claim 64 wherein said 9-bit data has a data rate of 1,125 Mbits/second.

66. (New) The method of claim 64 further including performing parity checks on said received data.

67. (New) A method for providing data transport in a network, comprising:

demultiplexing a received data;

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translating said demultiplexed data to a predetermined data, wherein said predetermined data includes a 10-bit data; and

generating a corresponding encoded data based on said translated predetermined data.

68.   (New) A method for providing data transport in a network, comprising:

demultiplexing a received data;

translating said demultiplexed data to a predetermined data, wherein said translated predetermined data includes a 10-bit data;

synchronizing the translated predetermined data; and

generating a corresponding encoded data based on said translated predetermined data.

69.   (New) The method of claim 68 wherein said 10-bit data has a data rate of 1,250 Mbits/second.

70.   (New) The method of claim 69 wherein said encoded data includes an 8B/10B encoded data.